

REQUEST FOR ACCESS TO AN APPLICATION UNDER 37 CFR 1.14(e)

In re Application of <i>BARCLAY</i>	
Application Number <i>07/439093</i>	Filed <i>11/17/89</i>
Art Unit	Examiner

Paper No. 19

Assistant Commissioner for Patents
Washington, DC 20231

1. ☐ I hereby request access under 37 CFR 1.14(e)(2) to the application file record of the above-identified ABANDONED Application, which is not within the file jacket of a pending Continued Prosecution Application (CPA) (37 CFR 1.53(d)) and is: (CHECK ONE)

☒ (A) referred to in:

United States Patent Application Publication No. _____, page _____, line _____,

United States Patent Number 6451567, column _____, line _____, or

an International Application which was filed on or after November 29, 2000 and which

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- ☐ (B) referred to in an application that is open to public inspection as set forth in 37 CFR 1.11(b) or 1.14(e)(2)(i), i.e., Application No. _____, paper No. _____, page _____, line _____.

2. ☐ I hereby request access under 37 CFR 1.14(e)(1) to an application in which the applicant has filed an authorization to lay open the complete application to the public.

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US006451567B1

(12) **United States Patent**
Barclay(10) **Patent No.: US 6,451,567 B1**
(45) **Date of Patent: Sep. 17, 2002**(54) **FERMENTATION PROCESS FOR
PRODUCING LONG CHAIN OMEGA-3
FATTY ACIDS WITH EURYHALINE
MICROORGANISMS**(75) Inventor: **William R. Barclay**, Boulder, CO (US)(73) Assignee: **Omegatech, Inc.**, Boulder, CO (US)(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.(21) Appl. No.: **09/461,709**(22) Filed: **Dec. 14, 1999****Related U.S. Application Data**(63) Continuation of application No. 08/968,628, filed on Nov.
12, 1997, now abandoned, which is a continuation of appli-
cation No. 08/461,137, filed on Jun. 5, 1995, now Pat. No.
5,688,500, which is a continuation of application No.
08/292,490, filed on Aug. 18, 1994, now Pat. No. 5,518,918,
which is a continuation of application No. 07/962,522, filed
on Oct. 16, 1992, now Pat. No. 5,340,742, which is a
continuation-in-part of application No. 07/911,760, filed on
Jul. 10, 1992, now Pat. No. 5,340,594, which is a continu-
ation of application No. 07/580,778, filed on Sep. 11, 1990,
now Pat. No. 5,130,242, which is a continuation-in-part of
application No. 07/439,093, filed on Nov. 17, 1989, now
abandoned, which is a continuation-in-part of application
No. 07/241,410, filed on Sep. 7, 1988, now abandoned.(51) **Int. Cl.⁷** **C12N 1/00; C12N 1/12;**
C12P 1/02; C12P 39/00; C12P 7/64(52) **U.S. Cl.** **435/134; 435/42; 435/135;**
435/171; 435/243; 435/257.1; 435/946(58) **Field of Search** **435/243, 257.1,**
435/946, 134, 42, 171, 135(56) **References Cited****U.S. PATENT DOCUMENTS**

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A process is provided for growing the microflora *Thraustochytrium*, *Schizochytrium*, and mixtures thereof, which includes the growing of the microflora in fermentation medium containing non-chloride containing sodium salts, in particular sodium sulfate. In a preferred embodiment of the present invention, the process produces microflora having a cell aggregate size useful for the production of food products for use in aquaculture. Further disclosed is a food product which includes *Thraustochytrium*, *Schizochytrium*, and mixtures thereof, and a component selected from flaxseed, rapeseed, soybean and avocado meal. Such a food product includes a balance of long chain and short chain omega-3 highly unsaturated fatty acids. Further, a process for producing lipids includes a fermentation by growing euryhaline microorganisms which are capable of producing 1.08 grams per liter of the fermentation medium per day of long chain omega-3 fatty acids per 40 grams of sugar per liter of the fermentation medium at a sodium ion concentration of 60% seawater. The lipids are then extracted from the euryhaline microorganisms.